erosion, flooding, and pollution of water; the isolation of toxic materials; the prevention of air pollution; the reclamation by revegetation, replacement of soil or by other means, of lands affected by the exploration or mining operations; the prevention of slides; the protection of fish and wildlife and their habitat; and the prevention of hazards to public health and safety.

- (2) A technical examination of an area should be made with the recognition that actual potential mining sites and mining operations vary widely with respect to topography, climate, surrounding land uses, proximity to densely used areas, and other environmental influences and that mining and reclamation requirements should provide sufficient flexibility to permit adjustment to local conditions.
- (b) Based upon the technical examination, the superintendent shall formulate the general requirements which the applicant must meet for the protection of nonmineral resources during the conduct of exploration or mining operations and for the reclamation of lands or waters affected by exploration or mining operations. The general requirements shall be made known in writing to the applicant before the issuance of a permit or lease and upon acceptance thereof by the applicant, shall be incorporated in the permit or lease.
- (c) In each instance in which an application is made the mining supervisor shall participate in the technical examination and in the formulation of the general requirements.
- (d) The superintendent may prohibit or otherwise restrict operations on any part of an area whenever it is determined that such part of the area described in an application for a permit or lease is such that previous experience under similar conditions has shown that operations cannot feasibly be conducted by any known methods or measures to avoid—
- (1) Rock or landslides which would be a hazard to human lives or endanger or destroy private or public property; or
- (2) Substantial deposition of sediment and silt into streams, lakes, reservoirs; or
- (3) A lowering of water quality below standards established by the appro-

priate State water pollution control agency, or by the Secretary of the Interior, or his authorized representative;

- (4) A lowering of the quality of waters whose quality exceeds that required by the established standards—unless and until it has been affirmatively demonstrated to the Secretary of the Interior, or his authorized representative, that such lowering of quality is necessary to economic and social development and will not preclude any assigned uses made of such waters; or
- (5) The destruction of key wildlife habitat or important scenic, historical, or other natural or cultural features.
- (e) If, on the basis of a technical examination, the superintendent determines that there is a likelihood that there will be a lowering of water quality as described in paragraphs (d) (3) and (4) of this section caused by the operation, no lease or permit shall be issued until after consultation with the Federal Water Pollution Control Administration and a finding by the Administration that the proposed operation would not be in violation of the Federal Water Pollution Control Act, as amended (33 U.S.C. 466 et seq.), or of Executive Order No. 11288 (31 FR 9261). Where a permit or lease is involved the Superintendent's determination shall be made in consultation with the mining supervisor.

## §216.5 Basis for denial of a permit or

An application for a permit or lease to conduct exploratory or mining operations may be denied any applicant who has forfeited a required bond because of failure to comply with a mining plan. However, a permit or lease may not be denied an applicant because of the forfeiture of a bond if the lands disturbed under his previous permit or lease have subsequently been reclaimed without cost to the lessor or the United States.

## §216.6 Approval of exploration plan.

(a) Before commencing any surface disturbing operations to explore, test or prospect for minerals, the operator shall file with the mining supervisor a plan for the proposed exploration operations. The mining supervisor shall

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consult with the superintendent with respect to the surface protection and reclamation aspects before approving said plan.

- (b) Depending upon the size and nature of the operation and the requirements established pursuant to §216.4 the mining supervisor may require that the exploration plan submitted by the operator include any or all of the following:
- (1) A description of the area within which exploration is to be conducted;
- (2) Two copies of a suitable map or aerial photograph showing topographic, cultural and drainage features;
- (3) A statement of proposed exploration methods; i.e., drilling, trenching, etc., and the location of primary support roads and facilities;
- (4) A description of measures to be taken to prevent or control fire, soil erosion, pollution of surface and ground water, damage to fish and wildlife or other natural resources, and hazards to public health and safety both during and upon abandonment of exploration activities.
- (c) The mining supervisor shall promptly review the exploration plan submitted to him by the operator and shall indicate to the operator any changes, additions, or amendments necessary to meet the requirements formulated pursuant to §216.4, the provisions of these regulations, and the terms of the permit.
- (d) The operator shall comply with the provisions of an approved exploration plan. The mining supervisor may, with respect to such a plan, exercise the authority provided by paragraphs (f) and (g) of §216.7 respecting a mining plan.

## $\S 216.7$ Approval of mining plan.

- (a) Before surface mining operations may commence under any permit or lease, the operator must file a mining plan with the mining supervisor and obtain his approval of the plan. The mining supervisor shall consult with the superintendent with respect to the surface protection and reclamation aspects before approving said plan.
- (b) Depending on the size and nature of the operation and the requirements established pursuant to §216.4 the min-

ing supervisor may require that the mining plan submitted by the operator include any or all of the following:

- (1) A description of the location and area to be affected by the operations;
- (2) Two copies of a suitable map, or aerial photograph showing the topography, the area covered by the permit or lease, the name and location of major topographic and cultural features, and the drainage plan away from the area affected;
- (3) A statement of proposed methods of operating, including a description of proposed roads or vehicular trails; the size and location of structures and facilities to be built:
- (4) An estimate of the quantity of water to be used and pollutants that are expected to enter any receiving waters:
- (5) A design for the necessary impoundment, treatment or control of all runoff water and drainage from workings so as to reduce soil erosion and sedimentation and to prevent the pollution of receiving waters;
- (6) A description of measures to be taken to prevent or control fire, soil erosion, pollution of surface and ground water, damage to fish and wildlife, and hazards to public health and safety; and
- (7) A statement of the proposed manner and time of performance of work to reclaim areas disturbed by the holder's operation.
- (c) In those instances in which the permit or lease requires the revegetation of an area of land to be affected, the mining plan shall show:
- (1) Proposed methods of preparation and fertilizing the soil prior to replanting:
- (2) Types and mixtures of shrubs, trees, or tree seedlings, grasses or legumes to be planted; and
- (3) Types and methods of planting, including the amount of grasses or legumes per acre, or the number and spacing of trees, or tree seedlings, or combinations of grasses and trees.
- (d) In those instances in which the permit or lease requires regrading and backfilling, the mining plan shall show the proposed methods and the timing of grading and backfilling of areas of land to be affected by the operation.